CLAIMS

What is claimed is:

1. A golf ball of unitary molded construction, wherein the entire golf ball is foamed from a composition that comprises an ethylene-vinyl acetate copolymer, a thermoplastic elastomer, and a blowing agent.

2. The golf ball of claim 1 wherein the golf ball has (i) a diameter that ranges from about 1.6 to about 2.4 inches, (ii) a weight that ranges from about 10 to about 28 grams, and (iii) a coefficient of restitution value that ranges from about 0.30 to about 0.45.

3. The golf ball of claim 1 wherein the ethylene-vinyl acetate copolymer ranges from about 0 to about 99 weight percent of the composition.

4. The golf ball of claim 1 wherein the thermoplastic elastomer ranges from about 0 to about 99 weight percent of the composition.

5. The golf ball of claim 1 wherein the blowing agent ranges from about 1 to about 10 weight percent of the composition.

6. The golf ball of claim 1 wherein the ethylene-vinyl acetate copolymer has vinyl acetate content that by weight ranges from about 15% to about 18%.

7. The golf ball of claim 1 wherein the thermoplastic elastomer has a Shore Hardness ranging from about 40 to about 90.

8. The golf ball of claim 1 wherein the thermoplastic elastomer is one or more of (i) a thermoplastic elastomer based on a dynamically vulcanized elastomer-thermoplastic blend, (ii) a styrene tri-block copolymer thermoplastic elastomer, and (iii) an ethylene-α-olefin copolymer thermoplastic elastomer.

9. The golf ball of claim 1 wherein the thermoplastic elastomer is a styrene tri-block copolymer thermoplastic elastomer.

10. The golf ball of claim 9 wherein the styrene tri-block copolymer thermoplastic elastomer is a styrene-butadiene-styrene block copolymer, a styrene-ethylene/butylene-styrene block copolymer, or a combination thereof.

11. The golf ball of claim 9 wherein the styrene tri-block copolymer thermoplastic elastomer is a styrene-ethylene/butylene-styrene block copolymer.

12. The golf ball of claim 1, further comprising polypropylene.

13. The golf ball of claim 12 wherein the polypropylene ranges from about 1.5 to about 10 weight percent of the composition.

14. The golf ball of claim 1, further comprising polyethylene.

15. The golf ball of claim 14 wherein the polyethylene ranges from about 1.5 to about 10 weight percent of the composition.

16. A method of making a golf ball of unitary molded construction comprising at least the following steps:

compounding a polymeric composition from the ingredients comprising an ethylene-vinyl acetate copolymer and a thermoplastic elastomer;

combining the polymeric composition with a blowing agent to yield a feedstock;

injecting the feedstock into a mold having a substantially spherical shape; and

cooling the mold to form the golf ball.

17. The method of making a golf ball in accordance with claim 16 further comprising the step of quenching the golf ball in an agitated water bath.

18. The method of making a golf ball in accordance with claim 16 wherein the ethylene-vinyl acetate copolymer ranges from about 0 to about 99 weight percent of the composition.

19. The method of making a golf ball in accordance with claim 16 wherein the thermoplastic elastomer ranges from about 0 to about 99 weight percent of the composition.

20. A golf ball of unitary molded construction made in accordance with the method of claim 16.